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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,571	08/22/2003	Hyun-Il Kwon	44846	8216
1609 7590 10/16/2007 ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P. 1300 19TH STREET, N.W. SUITE 600 WASHINGTON,, DC 20036			EXAMINER WONG, XAVIER S	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 10/16/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/645,571

Applicant(s)

KWON ET AL.

Examiner

Xavier Szewai Wong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26th July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08) ✓
Paper No(s)/Mail Date 8th August 2007.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

- Applicant's Amendment filed 26th July 2007 is acknowledged
- Claims 1-10 have been amended
- Claims 1-10 are still pending in the present application
- This action is made FINAL

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 8th August 2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 6, 7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al (US 2001/0006515 A1).

Consider claims 1 and 6, Lee et al disclose an apparatus and method for synchronization acquisition in a mobile terminal (UE) between a synchronous mode base station or an asynchronous mode base station (Node B) in a mobile communication system ([0053]: 1-16), comprising: a controller that generates a message (system select signal) to the base station to select between asynchronous (DS) mode or synchronous

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(MC) module ([0050-51]); and a PN code generator, in response to the message, inherently generates a synchronization code used in the determined system mode ([0052]: 8-14; [0053]: 1-8/19-26).

Consider claims 2, 4, 7 and 9, as applied to claims 1 and 6, Lee et al disclose the mobile station (inherently controlled by the controller; [0051]: 14-17) records in its memory that it is registered (pre-determined) in a sync system mode (prior to) entering idle sleep / powered-off condition ([0064]: 1-3); therefore, it is inherent that the controller has the ability to designate (remember) a system mode of a previous Node B to which the mobile station belong to prior to powering off. Also, since the sync mode is (previously) registered / stored as mentioned above, the sync mode has a first priority among sync and async modes as the determined system mode.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lee et al (US 2001/0006515 A1)** in view of **Suzuki et al (US 2002/0032692 A1)**.

Consider claims 3 and 8, and as applied to claims 1 and 5, **Lee et al** show and disclose the claimed invention. However, **Lee et al** *may not have explicitly* disclosed a service provider sets the system mode. **Suzuki et al** mention an application service provider that allows users to set the (current) modes to be synchronous or asynchronous system modes ([0223-225] & [0261]). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to incorporate the teachings of a controller that determines a system mode set by a service provider as taught by **Suzuki et al**, in the apparatus and method of **Lee et al**, in order to better manage resource priorities in a communication/workflow system.

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Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 2001/0006515 A1) in view of Lipponen et al (US 2002/0031169 A1).

Consider claims 5 and 10, and as applied to claims 1 and 6, Lee et al disclose a code generator for generating synchronization codes for a communication system based on a selected signal (col. 4 lines 41-51, col. 5 lines 8-13 & col. 7 lines 2-4; fig. 5). Lee et al may not have specifically mentioned the method and/in the apparatus using:

A register having a second number of registers necessary for generating a synchronization code used in the second system mode, the register unit operating so that a feedback value is input to a first number of shift registers necessary for generating a synchronization code used in the first system mode or to a second number of shift registers necessary for generating a synchronization code used in the second system mode, according to a predetermined control generated by the system mode select signal;

A synchronization code mask unit for masking a mask value for generating the synchronization code used in the first system mode or the synchronization code used in the second system mode, to a shift register value according to a predetermined control;

A feedback controller for determining a register feedback tap of the register unit for generating the synchronization code used in the first system mode or the synchronization code used in the second system mode according to a predetermined control generated by the system mode select signal, and inputting a feedback value to a shift register corresponding to a system mode, and;

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Combining a *mask value* and *shift register value* for generating a synchronization code.

In a related field of endeavor, **Lipponen et al** teach the concept of a linear feedback shift register in which its code is generated/inputted by mask registers based on a previous/determined (1st) state/mode before shifting into a new (2nd) state/mode ([0021-22] & [0070-71]; figs. 2C & 3A-B; *abstract*). The code generator, which controls the mask registers, is controlled by control(s) 262A and 262B based on an initial/predetermined state/mode as shown in figure 2B ([0052-54]; claim 8). Fig. 2C shows that register 3 (276) has a feedback route through an XOR gate (284) and line 288 back to register 1 (272); and at the same time, the last register 5 (280) has a feedback route through the same XOR gate back to register 1. Therefore, any state can be set as an initial state (besides zero) based on the position of the feedback route/tap. The linearity of the PN code refers to a characteristic that a code with the same period is generated irrespective of an initial value of the shift register in a state that the feedback tap is determined ([0057-59]). Flowchart in figure 3B discloses the usage of shift register value and mask value to yield code ([0056]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to incorporate the concepts of **Lipponen et al** comprising the *functions* of a register unit, synchronization code mask unit and a feedback control unit to generate synchronization codes and apply such concepts into selecting a determined sync or async mode in the apparatus and method of **Lee et al**, for synchronization acquisition.

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Response to Arguments

Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 26th July 2007 have been fully considered but they are not persuasive.

Regarding arguments to claims 5 and 10, **Lipponen** et al do mention a first and second number of shift registers (e.g. register 1 and register 5) that selects a determined/initial and a new state/mode. **Lipponen** et al also mention *controls* to control feedback route/tap and masking *functionality* based on a determined/initial state/mode.

Therefore, in view of the above reasons and having addressed Applicant's argument, the previous rejection is maintained and made Final by the examiner.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, this action is made Final. See MPEP 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

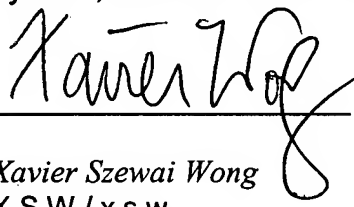
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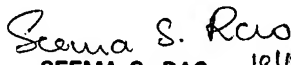
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xavier Wong whose telephone number is 571-270-1780. The examiner can normally be reached on Monday through Friday 8 am - 5 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Xavier Szewai Wong
X.S.W / x.s.w
3rd October 2007


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